

```
In [2]: import pandas as pd
```

```
In [3]: data=pd.read_csv("/home/placement/Downloads/movies.csv")
```

```
In [4]: data.describe()
```

Out[4]:

| | srno | year | rating | time |
|-------|--------------|--------------|--------------|--------------|
| count | 49590.000000 | 49590.000000 | 10814.000000 | 45836.000000 |
| mean | 24795.500000 | 2002.303428 | 3.451248 | 2628.445436 |
| std | 14315.544261 | 12.534555 | 0.495601 | 1604.646265 |
| min | 1.000000 | 1913.000000 | 1.400000 | 52.000000 |
| 25% | 12398.250000 | 1999.000000 | 3.100000 | 1356.000000 |
| 50% | 24795.500000 | 2007.000000 | 3.500000 | 2563.000000 |
| 75% | 37192.750000 | 2010.000000 | 3.800000 | 2877.000000 |
| max | 49590.000000 | 2014.000000 | 4.500000 | 28813.000000 |

```
In [5]: data.head(10)
```

```
Out[5]:
```

| | srno | movie | year | rating | time |
|---|------|-----------------------------|------|--------|--------|
| 0 | 1 | The Nightmare Before | 1993 | 3.9 | 4568.0 |
| 1 | 2 | The Mummy | 1932 | 3.5 | 4388.0 |
| 2 | 3 | Orphans of the Storm | 1921 | 3.2 | 9062.0 |
| 3 | 4 | The Object of Beauty | 1991 | 2.8 | 6150.0 |
| 4 | 5 | Night Tide | 1963 | 2.8 | 5126.0 |
| 5 | 6 | One Magic Christmas | 1985 | 3.8 | 5333.0 |
| 6 | 7 | Muriel's Wedding | 1994 | 3.5 | 6323.0 |
| 7 | 8 | Mother's Boys | 1994 | 3.4 | 5733.0 |
| 8 | 9 | Nosferatu: Original Version | 1929 | 3.5 | 5651.0 |
| 9 | 10 | Nick of Time | 1995 | 3.4 | 5333.0 |

```
In [6]: data.tail()
```

```
Out[6]:
```

| | srno | movie | year | rating | time |
|-------|-------|---|------|--------|--------|
| 49585 | 49586 | Winter Wonderland | 2013 | 2.8 | 1812.0 |
| 49586 | 49587 | Top Gear: Series 19: Africa Special | 2013 | NaN | 6822.0 |
| 49587 | 49588 | Fireplace For Your Home: Crackling Fireplace w... | 2010 | NaN | 3610.0 |
| 49588 | 49589 | Kate Plus Ei8ht | 2010 | 2.7 | NaN |
| 49589 | 49590 | Kate Plus Ei8ht: Season 1 | 2010 | 2.7 | NaN |

```
In [7]: data.isna().sum()
```

```
Out[7]: srno          0  
movie          0  
year           0  
rating    38776  
time       3754  
dtype: int64
```

```
In [8]: data.shape
```

```
Out[8]: (49590, 5)
```

```
In [9]: data.info()
```

```
<class 'pandas.core.frame.DataFrame'>  
RangeIndex: 49590 entries, 0 to 49589  
Data columns (total 5 columns):  
#   Column  Non-Null Count  Dtype  
---  -  
0   srno    49590 non-null    int64  
1   movie   49590 non-null    object  
2   year    49590 non-null    int64  
3   rating  10814 non-null    float64  
4   time    45836 non-null    float64  
dtypes: float64(2), int64(2), object(1)  
memory usage: 1.9+ MB
```

above line to check type of columns

```
In [10]: data1=data.groupby(['year']).count()  
data1
```

Out[10]:

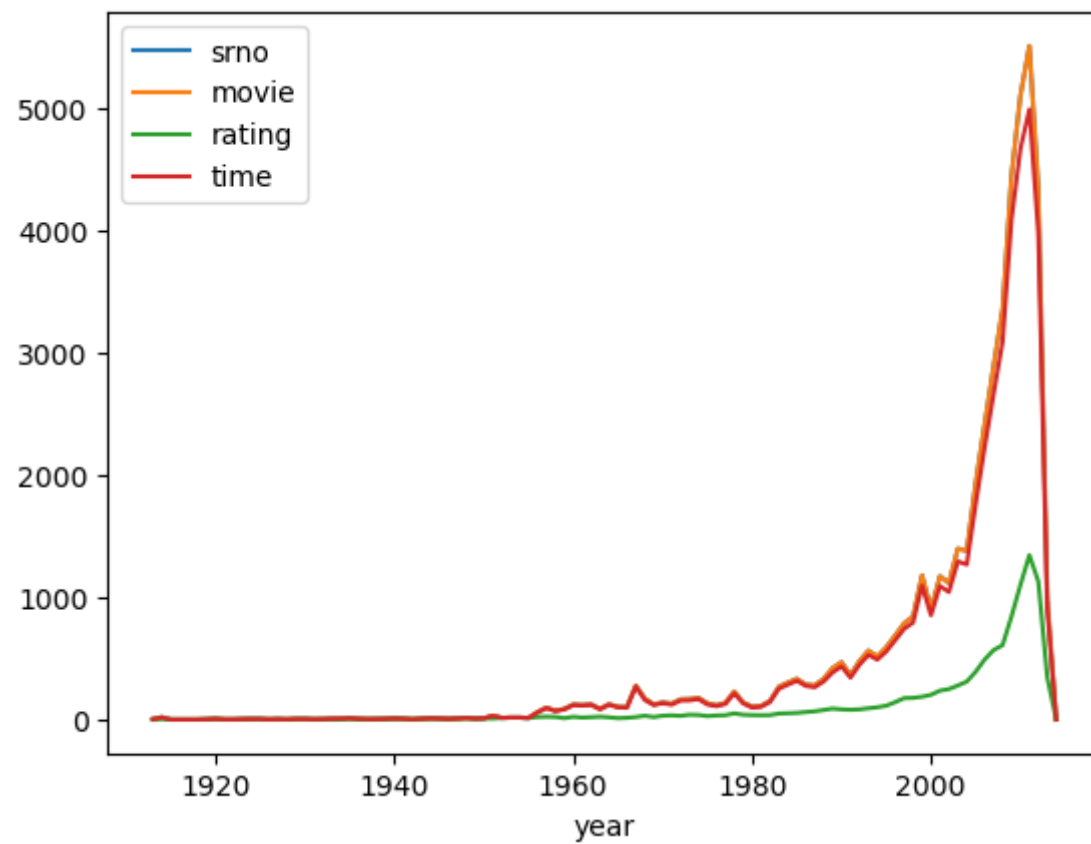
| | srno | movie | rating | time |
|------|------|-------|--------|------|
| year | | | | |
| 1913 | 3 | 3 | 3 | 3 |
| 1914 | 20 | 20 | 5 | 18 |
| 1915 | 1 | 1 | 1 | 1 |
| 1916 | 1 | 1 | 1 | 1 |
| 1918 | 1 | 1 | 1 | 1 |
| ... | ... | ... | ... | ... |
| 2010 | 5107 | 5107 | 1102 | 4671 |
| 2011 | 5511 | 5511 | 1346 | 4992 |
| 2012 | 4339 | 4339 | 1130 | 3978 |
| 2013 | 981 | 981 | 345 | 901 |
| 2014 | 1 | 1 | 1 | 1 |

101 rows × 4 columns

```
In [11]: data1.to_csv('movies2.csv')
```

```
In [12]: data1.plot()
```

```
Out[12]: <Axes: xlabel='year'>
```



```
In [ ]:
```

